Table II.A. 2. c. (2) (1998) Percent of private-sector establishments that offer health insurance that offer a mixed-provider plan that required no contribution from the employee for family coverage by firm size and State: United States, 1998 (40 States are shown separately)

Division and State	Total	Less than 10 employees	10 - 24 employees	25 - 99 employees	100-999 empl oyees	1000 or more employees	Less than 50 employees	50 or more employees
United States	15. 1%	23. 6%	16. 5%	11. 3%	5. 8%	5.4%	20. 6%	6. 1%
New England:								
Massachusetts	9. 7%						13. 3%	2.5% *
New Hampshire	7. 6%						9. 5%	2. 7% *
Connecticut	12.6%						16. 6%	4. 1% *
Middle Atlantic:								
New York	15. 9%						19. 9%	6.0% *
New Jersey	21. 3%		These cell es	timates have been	en suppressed		27. 0%	7. 4%
Pennsyl vani a	17. 2%	1			ard errors makes		23. 5%	4. 1% *
East North Central:		'						
Ohi o	19. 7%		them extremel	y unreliable. (	Column or row		29. 7%	7.4%
I ndi ana	16. 2%		estimates shou	uld be used in p	lace of these		23. 6%	7. 3%
Illinois	27. 3%			estimates.			35. 0%	14. 4%
Mi chi gan	22.0%						28. 7%	9. 3% *
Wi sconsi n	14. 7%						18. 0%	8.8% *
West North Central:								
Mi nnesota	12. 2%						16. 4%	4.4% *
Iowa	16. 3%						19. 9%	10.8% *
Mi ssouri	21. 9%						32. 4%	6. 8%
Nebraska	17. 2%						25. 5%	2. 4% *
Kansas	16. 4%						24. 3%	4. 1% *
South Atlantic:								
Del aware	9. 1%						12. 2%	3.3% *
Maryl and	7. 8%						11. 5%	2. 2%
Vi rgi ni a	10. 3%						15. 1%	2.8% *
West Virginia	11.6%						14. 4%	7. 9% *
North Carolina	13. 8%						21. 6%	2.4% *
South Carolina	12. 3%						16. 8%	6.6% *
Georgi a	15. 2%						26. 0%	1.6% *
Fl ori da	9. 8%						14. 9%	2. 2% *
East South Central:								
Kentucky	17. 1%						18. 4%	15. 3%
Tennessee	13. 3%						20. 2%	6. 4% *
Al abama	14. 4%						19.0%	8.5% *
West South Central:								2. 2.2
Arkansas	10. 5%						16. 4%	3.5% *
Loui si ana	11. 7%						19. 3%	2. 7% *
0kl ahoma	20. 9%						29. 3%	10.4% *
Texas	13. 8%						22. 3%	3. 6% *
Mountain:								
I daho	11. 9%						14. 6%	6. 7% *
Wyomi ng	10. 3%						13.0%	6. 2% *
Col orado	10. 3%						13. 0%	4.4% *
New Mexico	7. 2%						9. 1%	4.6%
Ari zona	11. 2%						18. 4%	2.5% *
Utah	12.4%						12. 3% *	12.5%
Paci fi c:							=	
Washi ngton	19. 5%						22. 9%	12.9%
0regon	14. 9%						17. 4%	10. 3%
Cal i forni a	12. 7%						17. 5%	5. 3%
States not shown separately	11. 3%						12. 6%	9. 2%
<u>.</u>								

Source: Agency for Healthcare Research and Quality, Center for Cost and Financing Studies. 1998 Medical Expenditure Panel Survey - Insurance Component. Note: Definitions and descriptions of the methods used for this survey can be found in the Technical Appendix.
\*Figure does not meet standard of reliability or precision.

Table 2. A. 2. c. (2) (1998) Standard error for percent of private-sector establishments that offer health insurance that offer a mixed-provider plan that required no contribution from the employee for family coverage by firm size and State: United States, 1998 (40 States are shown separately)

Inited States
Nes England: Massachuset ts 1. 69% Massachuset ts 1. 59% New Hampshire 1. 55% Connecticut 1. 59% Middle Atlantie:  New York 1. 79% New Jersen 2. 63% New Jersen 2. 63% New Jersen 3. 18% New Jer
Massachusetts
Mey Hampshire   1.52%   1.84%   2.77%   2.66%   1.84%   2.77%   2.77%   2.66%   2.17%   2.17
Connecticut         1, 5%         2, 7%         Moddle Atlantic:           New York         1, 73%         2, 26%         2, 17%         New Jersey         2, 63%         3, 31%         1, 89%           Pennsyl vania         1, 96%         3, 16%         1, 33%         1, 89%           Pennsyl vania         1, 96%         3, 16%         1, 33%         1           East North Central:         0010         1, 84%         3, 57%         2, 68%           I I I inois         2, 33%         3, 20%         3, 20%         3, 27%         2, 22%           Wisconsin         2, 61%         3, 40%         2, 81%         3, 73%         1, 28%         3, 27%         2, 22%         20%         3, 20%         3, 27%         2, 22%         20%         3, 20%         2, 28%         3, 20%         2, 22%         20%         3, 20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3, 20%         2, 22%         20%         3,
Med Idantic:   New York
New York         1.73%         2. 26%         2. 17%           New Jersey         2. 63%         3. 16%         1. 33%           Pennsyl vani a         1. 96%         3. 16%         1. 33%           East North Central:
New Jersey         2.63%         3.31%         1.89%           East North Central:         1.96%         3.6%         1.75%           Ohio         1.84%         3.80%         1.75%           Indiana         1.90%         3.57%         2.08%           Michigan         2.85%         3.82%         2.82% *           Misconsin         2.61%         3.40%         2.81%           West North Central:         4.10%         1.38% *           Minesouri         1.88%         3.57%         4.06% *           Missouri         1.78%         3.15%         1.96% *           Nebraska         3.14%         5.74%         1.30% *           Kansas         3.15%         5.22% *         1.88%           Nebraska         3.15%         5.74%         1.30% *           South Atlantic:         2.13%         5.74%         1.30% *           South Archanic:         3.15%         5.22% *         8.8%         0.50%           West Virginia         1.95%         2.88%         0.50%         1.21% *           Marchanic:         2.30%         2.88%         0.50%         2.88%         0.50%           South Carolina         2.68%         2.58%
Pennsyl vania
East North Central: Ohio
Ohio       1, 84%       3, 80%       1, 75%         Indiana       1, 90%       3, 57%       2, 08%         II I inois       2, 33%       3, 08%       3, 73%         Mi chi gan       2, 85%       3, 40%       2, 81% *         West North Central:       3, 40%       2, 81% *         Minnesota       2, 69%       4, 10%       1, 38% *         Mess North Central:       3, 15%       3, 15%       1, 39% *         Missouri       1, 88%       3, 15%       3, 15%       1, 39% *         Nebraska       3, 15%       3, 15%       1, 39% *         Nebraska       3, 15%       1, 39% *       1, 89% *         South Atlantic:       5, 24%       1, 21% *       4, 10% *       1, 30% *       1, 21% *         South Atlantic:       Bel aware       2, 13%       3, 45%       1, 21% *       4, 12% *       1, 89% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *       4, 12% *       1, 21% *
Indiana       1.90%       3.57%       2.08%         Illinois       2.33%       3.08%       3.7%         M. chi gan       2.85%       3.82%       2.82% *         Misconsin       2.61%       3.40%       2.81% *         West North Central:       ****       *****         Minesota       2.69%       4.10%       1.38% *         I owa       1.88%       3.15%       1.39% *         Mebraska       3.14%       3.15%       1.39% *         Kansas       3.15%       5.22%       1.89% *         South Atlantic:       ****       ****         Del aware       2.13%       3.45%       1.21% *         Maryland       1.95%       3.45%       1.21% *         West Virginia       2.36%       2.28% *       0.56% *         Viest Virginia       2.27%       3.89% *       1.52% *         North Carolina       1.74%       2.77% *       0.90% *         Nouth Carolina       1.74% *       2.27% *       0.90% *         Coorgia       2.68% *       2.25% *       2.26% *         Goorgia       2.68% *       2.25% *       2.25% *         East South Central:       *       4.23% *
Illinois
Michigan
Wisconsin       2.61%       3.40%       2.81% *         West North Central:       ************************************
West North Central:         4, 10%         1, 38%           Minnesota         1, 88%         3, 57%         4, 06% *           Missouri         1, 78%         3, 15%         1, 39% *           Nebraska         3, 14%         5, 74%         1, 30% *           Kansas         3, 15%         5, 22%         1, 89% *           South Atlantic:         1         10         1, 21% *           Delaware         2, 13%         3, 45%         1, 21% *           Maryland         1, 95%         2, 28%         0, 56% *           West Virginia         2, 23%         3, 89%         1, 52% *           Wost Virginia         2, 27%         3, 17%         3, 78% *           North Carolina         1, 74%         2, 77%         0, 90% *           South Carolina         2, 58%         2, 52%         3, 26% *           Georgia         2, 68%         6, 21%         0, 56% *           Florida         1, 68%         2, 25%         3, 26% *           East South Central:         2, 88%         1, 15% *           Kentucky         2, 66%         2, 85%         4, 23%         1, 47% *           Louisiana         1, 97%         3, 69%         1, 38% * <tr< td=""></tr<>
Minesota 2.69% 4.10% 1.38% * Iowa 1.88% 3.57% 4.06% * Missouri 1.78% 3.15% 1.39% Nebraska 3.14% 5.74% 1.30% * Kansas 3.15% 5.22% 1.89% * South Atlantic:  Belaware 2.13% 3.45% 1.21* * Maryl and 1.95% 2.36% 3.89% 1.52% * North Carolina 2.26% 3.89% 2.55% 3.89% 1.52% * North Carolina 1.74% 2.77% 0.90% * South Carolina 2.58% 2.58% 2.57% 3.26% * Flori da 2.68% 2.58% 2.55% 3.26% * Flori da 1.68% 2.58% 2.55% 3.26% * Flori da 2.68% 4.13% 2.77% 3.38% * Fast South Central:  Kentucky 2.66% 2.88% 1.15% * East South Central:  Kentucky 2.66% 2.88% 4.13% 4.34% 3.32% * Alabama 2.46% 3.49% 4.34% 3.32% * Alabama 2.46% 3.49% 4.34% 3.32% * Alabama 3.40% 4.34% 3.32% * Arkansas 4.60% 3.60% 3.60% 3.40% 4.34% 3.32% * Arkansas 2.61% 4.23% 1.47% * Loui si ana 1.97% 3.69% 1.38% * Okl ahoma 3.13% 4.18% 3.33% * Texas 2.09% 3.14% * Mountain: Idaho 2.56% 3.00% 2.12% *
Lowa
Ms souri 1. 78% 3. 15% 1. 39% Nebraska 3. 14% 5. 74% 1. 30% * Kansas 3. 15% 5. 74% 1. 30% * Kansas 3. 15% 5. 74% 1. 30% * Kansas 3. 15% 5. 74% 1. 30% * Kansas 5. 22% 1. 89% * South Atlantic:  Del aware 2. 13% 3. 45% 1. 21% * Maryland 1. 95% 2. 88% 0. 56% Virginia 2. 36% 2. 88% 0. 56% Virginia 2. 36% 3. 89% 1. 52% * North Carolina 2. 27% 3. 17% 3. 78% * Rorth Carolina 1. 74% 2. 77% 0. 90% * South Carolina 2. 58% 2. 52% 3. 26% 2. 52% 3. 26% 2. 56% 6. 21% 0. 56% * Florida 1. 68% 2. 68% 1. 15% * East South Central:  Kentucky 2. 66% 2. 86% 2. 88% 1. 15% * East South Central:  Kentucky 2. 66% 2. 86% 4. 13% 4. 13% 4. 13% 4. 148% 3. 34% * West South Central:  Kentucky 2. 66% 4. 13% 4. 13% 4. 13% 4. 13% 4. 148% 3. 34% * West South Central:  Kentucky 3. 69% 1. 38% 4. 13% 4. 13% 4. 148% 3. 34% * West South Central:  Kentucky 4. 2. 66% 4. 13% 3. 36% 3. 34% * West South Central:  Kentucky 3. 69% 1. 38% 4. 13% 4. 14% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 97% 3. 141% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Mountain:  Louisi ana 1. 97% 3. 69% 1. 38% * Okl ahoma 3. 13% 1. 41% * Okl ahoma 4. 2. 20% 1. 41%
Nebraska       3, 14%       5, 74%       1, 30% *         Kansas       3, 15%       5, 22%       1, 89% *         South Atlantic:
Kansas       3.15%       5.22%       1.89% *         South Atlantic:
South Atlantic:       3. 45%       1. 21% *         Del aware       2. 13%       3. 45%       1. 21% *         Maryland       1. 95%       2. 88%       0. 56%         Virginia       2. 36%       3. 89%       1. 52% *         West Virginia       2. 27%       3. 17%       3. 78% *         North Carolina       1. 74%       2. 77%       0. 90% *         South Carolina       2. 52%       3. 26% *         Georgia       2. 52%       3. 26% *         Florida       1. 68%       2. 2. 88%       1. 15% *         East South Central:       ***         Kentucky       2. 66%       2. 88%       1. 15% *         Tennessee       3. 49%       4. 34%       3. 32% *         Alabama       2. 46%       4. 34%       3. 32% *         West South Central:       ***         Arkansas       2. 61%       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         Loui si ana       1. 97%       3. 33% *         Okl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 99%       1. 41% *         Mountain:       1. 140       1. 140
Del aware       2. 13%       3. 45%       1. 21% *         Maryland       1. 95%       2. 88%       0. 56%         Virginia       2. 36%       3. 89%       1. 52% *         West Virginia       2. 27%       3. 17%       3. 78% *         North Carolina       1. 74%       2. 77%       0. 90% *         South Carolina       2. 58%       2. 52% 3. 26% *         Georgia       2. 68%       6. 21%       0. 56% *         Florida       1. 68%       2. 88%       1. 15% *         East South Central:       Kentucky       2. 66%       2. 85%       4. 13%         Tennessee       3. 49%       4. 34%       3. 32% *         Al abama       2. 46%       2. 46%       3. 43%       3. 43% *         West South Central:       Arkansas       4. 23%       1. 47% *         West South Central:       Arkansas       4. 23%       1. 47% *         Loui siana       1. 97%       3. 69%       1. 38% *         Loui siana       1. 97%       3. 69%       1. 38% *         Okl ahoma       3. 13%       2. 93%       1. 41% *         Mountain:       1. 41%       3. 03% *       2. 12% *
Maryl and       1.95%       2.88%       0.56%         Virginia       2.20%       3.89%       1.52% *         West Virginia       2.27%       3.17%       3.78% *         North Carolina       1.74%       2.77%       0.90% *         South Carolina       2.58%       2.52%       3.26% *         Georgia       2.68%       6.21%       0.56% *         Florida       1.68%       2.88%       1.15% *         East South Central:       ***       ***         Kentucky       2.66%       2.85%       4.13%         Tennessee       3.49%       4.34%       3.32% *         Mest South Central:       ***         Arkansas       2.61%       4.23%       1.47% *         Loui si ana       1.97%       3.69%       1.38% *         Okl ahoma       3.13%       4.18%       3.33% *         Texas       2.09%       4.18%       3.33%       2.93%       1.41% *         Mountain:       1.14ho       ***       4.14%       ***         I daho       2.56%       3.03%       2.12% ***
Virginia       2. 36%       3. 89%       1. 52% *         West Virginia       2. 27%       3. 17%       3. 78% *         North Carolina       1. 74%       2. 77%       0. 90% *         South Carolina       2. 58%       2. 52%       3. 26% *         Georgia       2. 68%       6. 21%       0. 56% *         Florida       1. 68       2. 88%       1. 15% *         East South Central:       ***       ***         Kentucky       2. 66%       2. 85%       4. 13%         Tennessee       3. 49%       4. 34%       3. 32% *         Al abama       2. 46%       3. 67%       3. 34% *         West South Central:       ***       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         Okl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 09%       4. 18%       3. 33% *         Mountain:       1. 141% *       ***         Idaho       2. 56%       3. 03%       2. 12% *
West Virginia       2. 27%       3. 17%       3. 78% *         North Carolina       1. 74%       0. 90% *         South Carolina       2. 58%       2. 52%       3. 26% *         Georgia       2. 68%       6. 21%       0. 56% *         Florida       1. 68%       2. 88%       1. 15% *         East South Central:       Kentucky       2. 85%       4. 13%         Tennessee       3. 49%       2. 85%       4. 34%       3. 32% *         Al abama       2. 46%       3. 67%       3. 34% *         West South Central:       Arkansas       2. 61%       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         0kl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 09%       2. 93%       1. 41% *         Mountain:       1 daho       2. 56%       3. 03%       2. 12% *
North Carolina 1.74% 2.77% 0.90% * South Carolina 2.58% 2.52% 3.26% * Georgia 2.68% 6.21% 0.56% * Florida 1.68% 2.88% 1.15% * East South Central: Kentucky 2.66% 2.85% 4.13% 2.88% 1.15% * Tennessee 3.49% 4.34% 3.32% * Al abama 2.46% 4.34% 3.32% * West South Central: Arkansas 2.61% 4.23% 1.47% * Louisiana 1.97% 3.69% 1.38% * Okl ahoma 3.13% 4.18% 3.33% * Texas 2.09% 4.18% 3.33% * Texas 2.09% 4.18% 3.33% * Mountain: Idaho 2.56% 3.03% 2.12% *
South Carolina       2.58%       3.26% *         Georgia       2.68%       6.21%       0.56% *         Florida       1.68%       2.88%       1.15% *         East South Central:       Kentucky       2.66%       2.85%       4.13%         Tennessee       3.49%       4.34%       3.32% *         Alabama       2.46%       3.67%       3.34% *         West South Central:         Arkansas       2.61%       4.23%       1.47% *         Loui si ana       1.97%       3.69%       1.38% *         0kl ahoma       3.13%       4.18%       3.33% *         Texas       2.09%       4.18%       3.33% *         Mountai n:       1.41% *       3.03%       2.12% *
Georgia       2. 68%         Florida       1. 68%         East South Central:       2. 88%       1. 15% *         Kentucky       2. 66%       2. 85%       4. 13%         Tennessee       3. 49%       4. 34%       3. 32% *         Al abama       2. 46%       3. 67%       3. 34% *         West South Central:       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         0kl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 93%       1. 41% *         Mountain:       1 daho       2. 56%       3. 03%       2. 12% *
Florida 1. 68% 2. 88% 1. 15% * East South Central: Kentucky 2. 66% Tennessee 3. 49% Al abama 2. 46% West South Central:  Arkansas 2. 61% Loui si ana 1. 97% Okl ahoma 3. 13% Texas 2. 09% Mountai n: I daho 2. 56%  1. 15% *  2. 88% 1. 15% *  4. 13% 3. 32% *  4. 13% 3. 34% *  4. 23% 1. 47% *  4. 23% 1. 47% *  4. 23% 1. 47% *  4. 23% 1. 47% *  5. 69% 1. 38% *  6. 1. 15% *  1. 10% 1.
East South Central:  Kentucky 2. 66% Tennessee 3. 49% Al abama 2. 46%  West South Central:  Arkansas 2. 61% Loui si ana 1. 97% Okl ahoma 3. 13% Texas 2. 09%  Mountain: I daho 2. 56%  2. 85% 4. 13% 4. 13% 4. 23% 3. 32% * 4. 23% 1. 47% * 4. 23% 1. 47% * 4. 23% 1. 47% * 4. 28% 1. 38% * 4. 18% 3. 33% * 4.
Kentucky       2. 66%         Tennessee       3. 49%         Al abama       2. 46%         West South Central:         Arkansas       2. 61%         Loui si ana       1. 97%         0kl ahoma       3. 13%         Texas       2. 09%         Mountai n:         I daho       2. 56%
Tennessee 3. 49% Al abama 2. 46% West South Central:  Arkansas 2. 61% Loui si ana 1. 97% Okl ahoma 3. 13% Texas 2. 09% Mountai n: I daho 2. 56%  4. 34% 3. 32% * 4. 23% 1. 47% * 4. 23% 1. 47% * 4. 18% 3. 33% * 4. 18% 3. 33% * 4. 18% 3. 33% * 5. 93% 1. 41% * 5. 93% 1. 41% * 5. 93% 1. 41% * 5. 93% 2. 12% *
Al abama 2. 46% West South Central:  Arkansas 2. 61% Loui si ana 1. 97% Okl ahoma 3. 13% Texas 2. 09%  Mountai n: I daho 2. 56%  3. 67% 3. 34% *  4. 23% 1. 47% *  3. 69% 4. 18% 3. 33% *  4. 18% 3. 33% *  2. 93% 1. 41% *  3. 03% 2. 12% *
West South Central:         Arkansas       2. 61%       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         0kl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 09%       2. 93%       1. 41% *         Mountain:       1 daho       2. 56%       3. 03%       2. 12% *
Arkansas       2. 61%       4. 23%       1. 47% *         Loui si ana       1. 97%       3. 69%       1. 38% *         0kl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 09%       2. 93%       1. 41% *         Mountai n:       1 daho       2. 56%       3. 03%       2. 12% *
Loui si ana 1. 97% 3. 69% 1. 38% * 0kl ahoma 3. 13% 4. 18% 3. 33% * Texas 2. 09% 2. 93% 1. 41% * Mountai n: I daho 2. 56% 3. 03% 2. 12% *
0kl ahoma       3. 13%       4. 18%       3. 33% *         Texas       2. 09%       2. 93%       1. 41% *         Mountain:       1 daho       2. 56%       3. 03%       2. 12% *
Texas 2.09% 2.93% 1.41% * Mountain: I daho 2.56% 3.03% 2.12% *
Mountain: I daho 2. 56% 3. 03% 2. 12% *
I daho 2. 56% 3. 03% 2. 12% *
Wroming 9 000/
Wyoming 2. 28% 2. 36% 5. 38% *
Col orado 2. 15% 2. 82% 1. 93% *
New Mexico 1.63% 2.49% 1.25%
Ari zona 1. 63% 2. 35% 1. 50% *
Utah 2. 62% 3. 96% * 3. 60%
Paci fi c:
W 11 4 4 000
Washi ngton 1. 80% 2. 82%
Washington       1.80%       1.92%       2.82%         Oregon       1.87%       2.44%       3.09%

Source: Agency for Healthcare Research and Quality, Center for Cost and Financing Studies. 1998 Medical Expenditure Panel Survey - Insurance Component. Note: Definitions and descriptions of the methods used for this survey can be found in the Technical Appendix.

\*Figure does not meet standard of reliability or precision.